HEAL THE OCEAN

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Via Electronic Mail

Tuesday, May 26, 2009

Attn: Ms. Mary Adams
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

Re: Proposed Revisions to the 303(d) List of Impaired Water Bodies & Consideration of an Integrated Assessment Report for the Central Coast Region

Dear Mary Adams and the Regional Board:

These comments on the proposed revisions to the Federal Clean Water Act Section 303(d) List ("303(d) List") are submitted on behalf of Heal the Ocean, a non-profit corporation active in improving water quality in the Pacific Ocean and local watersheds of Santa Barbara County.

General Comment:
We are confining our specific comments to three waterbodies in Santa Barbara County (all HU 315): Pacific Ocean at Hammonds Beach (suggested removal from list for Fecal Coliform), and the Carpinteria Marsh/El Estero Marsh (suggested for removal from List for Sedimentation/Siltation), and the Goleta Slough/Estuary (suggested for removal from List for both Metals and Sedimentation/Siltation).

Both Carpinteria Marsh (El Estero) and Goleta Slough Estuary were previously removed from the List during the Regional Board's last listing cycle, over Heal the Ocean's objection, and we ask that the Board reconsider this removal during this cycle for the important reasons cited in this letter.

As for the Pacific Ocean at Hammonds Beach, Heal the Ocean presents here new information (received in April 2009) that strongly implies that Hammonds Beach should remain on the 303(d) List for Fecal Pollution until proven otherwise.

Our arguments as to the specifics for these three water bodies are cited below, but Heal the Ocean has a general comment regarding the adoption of both the Proposed Revisions to the 303(d) List of Impaired Water Bodies and the Integrated Assessment Report for the Central Coast Region:

We commend the Regional Board for (apparently) including many datasets to arrive at new listings that are important waterbodies to repair in the Central Coast Region. However, Heal the Ocean finds it odd that the listings are based on "Lines of Evidence" (LOEs) are very old (AB 411 test results from 2004, 2005 and 2006), which exclude more recent testing results and data-keeping from 2007 and 2008). In addition, the LOEs are not "Lines of Evidence" in any sense of the word, because *no sources* for this data are recorded anywhere in the proposed 303(d) List revision or the Draft 2008 303(d)/305(b) Integrated Report. (The AB 411 links for 2004, 2005, 2006 for each listing merely opens a large database of dates and times and results, and no indication is given as to who collected this information, whether County technician, Environmental Health employee, non-profit volunteers, school children or a local janitor.)

We encourage the Regional Board to move ahead with its 2010 revision as quickly as possible, because the 303(d) List, together with the 303(d)/305(b) Integrated Report, are extremely important documents that provide the basis for cleaning up our ocean and watersheds. They provide the rationale for State grant funding (Heal the Ocean received a Proposition 50 Clean Beaches Initiative grant to study the Montecito Sanitary District wastewater outfall, because of the 303(d) listing of nearby Hammonds Beach.) These documents are the basis of requirement for local, county and state agencies to target source reduction.

Hammonds Beach

Heal the Ocean is VERY opposed to the de-listing of Hammonds Beach for fecal coliform and enterococcus. The LOEs are old information. Hammonds Beach specifically exceeded state standards for both Fecal Coliform and enterococcus on 12/15/2008 and 3/9/2009 (marked with a Warning), and was posted with a warning on February 9, 2009 for enterococcus. Heal the Bay gave Hammonds the following grades:

Jan 2007	D
June 2007	C
Jan 2008	D
Dec 2008	F
Jan 2009	F
Between Feb 2009 & March 2009	F
Between March & April 2009	F

In its 2009 Beach Report Card, recently released, Heal the Bay commented that Santa Barbara's wet weather water quality is poor and below the state average. Of the seven beaches listed with poor wet weather water quality, four that received the worst grades (F) are: Goleta Beach, Arroyo Burro Beach, East Beach at Sycamore Creek and Hammonds Beach.

More importantly, Heal the Ocean received in April 2009 the preliminary results of PhyloChip testing that has been performed on ocean-water samples collected in the Hammonds Beach and Butterfly Beach areas very near the Montecito wastewater outfall from November 2007 through November 2008). The PhyloChip, which helps researchers identify dangerous pathogens before they can affect humans, is a custom Affymetrix microarray developed by Lawrence Berkeley National Laboratory (it won the bronze prize in the 2008 Wall Street Journal Technology Innovation Awards).

The PhyloChip detected in the ocean-water samples taken from Hammonds Beach and Butterfly Beach areas a positive reading for 2,800 species of human pathogens (out of 8,900 distinctive environmental and pathogenic microbial species the PhyloChip can detect.)

Since Hammonds Beach is a very popular surfing and swimming spot, it must not be de-listed for fecal coliform or enterococcus!

Carpinteria/El Estero Marsh:

The Carpinteria/El Estero Marsh should *not* have been removed in 2006 from the 303(d) list for sediment/siltation, and it should be re-listed now.

Heal the Ocean asserted during the 2006 revision period that the weight of evidence presented to de-list the Marsh was unsatisfactory, and this error continues. The argument for de-listing Carpinteria Marsh for sedimentation was based on the claim that the original listing was faulty because it was based on "Regional Board staff observed erosion and sedimentation in the 1980s," thus the original listing was considered to "not be based on data."

However, EPA stipulates that anecdotal observations can be used as supporting evidence in making a 303(d) listing. Also, as Heal the Ocean pointed out to the Regional Board, recent studies conducted through the UCSB Carpinteria Salt Marsh Reserve program under the direction of Dr. W. Ferrin, revealed sedimentation and water quality as two of the most important management issues affecting the long-term health and preservation of the Marsh. These water quality issues are identified in the *Management Plan for Carpinteria Salt Marsh Reserve: A Southern California Estuary*.

In general, sedimentation has been identified as one of the most important management issues to preserving or restoring the health and preservation of coastal marshes throughout California.

EPA stipulates in its water quality objectives that "the suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses." Since the 2006 Listing revision, the City of Carpinteria provided for a greenhouse expansion plan, a large-scale construction project that has had the potential to significantly increase the discharge rate of sediment into the Carpinteria Marsh and thereby prevent the City from obtaining water quality standards. Protection of the Carpinteria Marsh through the 303(d) listing for sedimentation is crucial.

Goleta Slough/Estuary:

Similarly, Goleta Slough should *not* have been removed from the 303(d) list for sediment/siltation, or for metals, and the Goleta Slough/Estuary should be re-listed for both pollutants in the current listing.

In 2006, the decision to de-list this water body was based on the claim that the original listing was faulty and that the weight of evidence used to make this claim was based on the assertion that the data could not be found to support the original listing.

It is uncertain what data was used to make the original listing, but since the de-listing there have been scientific studies documenting the sedimentation problem in the Goleta Slough. One such study done by Dr. Mark Holmgren indicates the seriousness of the sedimentation of Goleta Slough has continued to increase over time. Dr. Holmgren states that during the flood event of 1995 flood waters carrying sediment topped the ocean berm and the channel was unable to contain the flow volume. As soon as the muddy waters broke over the bank, the rate of flow dropped and, because fast-moving water carries sediment, the sediment dropped out of suspension and settled. This sediment load apparently also brought with it seeds and sprouts from upland vegetation. In addition, the level of the soil in the Slough built to a height above that at which ocean tides can exert their effects.

Fourteen months after the March 1995 flood, the muddy area of Goleta Slough was colonized with shrubby upland growth and the result was that a forest formed where salt marsh existed prior to 1995. By 2001 willows and *baccharis* began to dominate and a totally new kind of habitat began to replace the natural habitat. The insidious aspect is that this new habitat serves as an even more effective sediment trap for subsequent silt carrying flood events. As a result Goleta Slough is a highly effective sediment trap. Enormous amounts of sediment that would reach the beach and the long-shore current are now trapped in the estuary.

AERIAL PHOTO OF THE GOLETA SLOUGH, IN RELATION TO THE SANTA BARBARA AIRPORT

The above photo, and the following text, are taken from a report by Wayne R. Ferren Jr.[1], Peggy L. Fiedler[2], Robert A. Leidy[3], Kevin D. Lafferty[4] http://www.mip.berkeley.edu/wetlands/estuarin.html. PLEASE NOTE that the text refers to both the Goleta Slough/Estuary and the Carpinteria/El Estero ("Salt") Marsh:

In regions characterized by considerable tectonic activity such as coastal Santa Barbara County, down-faulted and down-folded geologic structures may support estuaries of moderate size (200-300 ac). The South Coast region of this county occurs along the south side of the Santa Ynez Mountains and includes uplifted coastal mesas and foothills and down-faulted basins, such as the one containing Goleta Slough (Fig. VI-7.) in the Goleta Valley, or down-folded (synclinal) basins such as the one containing Carpinteria Salt Marsh in the Carpinteria Valley (Ferren 1985; Ferren 1990).

These structural basins have steep but short watersheds rising to approximately 1130 m (3500 ft) in elevation, and are characterized by occasional catastrophic flooding and sedimentation, particularly from large storms that may occur after chaparral fires in the adjacent foothills and mountains. Today, the estuaries at Goleta and Carpinteria apparently represent late successional stages of estuarine ecosystem evolution.

Prehistoric bays or lagoons that once characterized the sites are now largely filled with sediment and lack extensive subtidal and low marsh habitats. The middle and high marsh habitats are irregularly flooded and frequently contain hyperhaline or euryhaline soils, particularly in the vicinity of stream deltas that form salt flat habitats in high marsh areas along deltaic gradients from upland to estuarine wetland (Callaway et al. 1990; Pennings and Callaway 1993). (Underlinings ours.)

Perhaps the most significant argument against de-listing the Goleta Slough for sedimentation is the fact that the County of Santa Barbara spends hundreds of thousands of dollars every year to dredge the Slough for the purpose of removing excess sediment. These efforts are done, in large part, to control flooding. The Goleta Slough dredging project consists of dredging the Goleta Slough in the lower reaches of San Jose, San Pedro, and Atascadero Creeks. Sediment deposited by storm events is removed by a hydraulic dredge and piped to the mouth of the slough, where it is discharged into the surf zone. This project is scheduled every 2-5 years depending on sediment deposition, at an estimated cost of $250,000 - $500,000. As such, excessive sedimentation continues to be a significant problem for the management of the Goleta Slough.

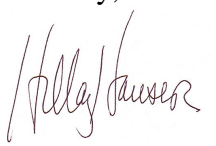
Again, EPA water quality objectives state that "the suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses." The Santa Barbara Airport, which is part of the filled land on the Slough, will be conducting a large scale construction project over the next 10 years. This construction project has the potential to significantly increase the discharge rate of sediment into the Goleta Slough and prevent water quality standards from being met. Heal the Ocean insists that protection of the Goleta Slough be made through the 303(d) listing process for sedimentation.

Finally, re: the de-listing of metals in the Goleta Slough, should never have been approved for the Goleta Slough – not only because of Airport operations, but because of the 10-year construction/expansion of the Airport in the Goleta Slough watershed.

Once again, we would like to remind the Regional Board that it is vitally important to refrain from haste in de-listing any coastal area that is in doubt – especially beaches of high human use – because the 303(d) list is an important document by which agencies and non-profit environmental groups, such as Heal the Ocean, can receive financial and political support for fixing a pollution problem.

Heal the Ocean appreciates the opportunity to comment on this important issue.

Sincerely,



Hillary Hauser, executive director

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